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Dated: November 27, 2001 Signature: *[Signature]*

(Reza Mollasaghbabai)

Docket No.: 101328-0148  
(PATENT)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:  
Theodore H. Fedynyshyn

Application No.: 09/512,942

Filed: February 25, 2000

For: ENCAPSULATED INORGANIC RESISTS

Group Art Unit: 1752

Examiner: J. Chu

RESPONSE

Commissioner for Patents  
Washington, DC 20231

Dear Sir:

In response to the Office Action mailed from the United States Patent and Trademark Office on June 29, 2001, Applicant amends claims 1 and 15, and adds new claims 18, 19, 20, and 21, as shown on attached sheets. In addition to a clean copy of the amended claims, a marked-up copy of these claims in which additions are underlined and deletions are bracketed is enclosed. As discussed below, the claims now pending in the application distinguish patentably over the cited references. Reconsideration and allowance are requested in light of the amendments and following remarks.

REMARKS

The present invention provides photosensitive resist materials, useful in lithography, that include colloidal particles which significantly increase the plasma etch selectivity of the photoresist materials. More particularly, amended claim 1 recites a positive photoresist composition that includes a resin binder and an encapsulated inorganic material having core particles with an average size less than about 10 nanometers. A photoresist material of the invention, which can be applied as a film having a thickness in a range of about 10 to 1000 nm to a substrate surface, can withstand downstream processing, such as, plasma etching, while allowing radiant energy to penetrate its entire thickness. In this regard, new claims 18 and 21 recite methods of processing/patterning a semiconductor surface that utilize the plasma-etch

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